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## **Review Article**

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# Role of Hydrogen Ion Recombination in the Induction of Hemostasis in the Internal Environment of the Human Body

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#### **Summary**

The paper considers the concept of ability to restore the lost balance of dynamic energy stability of the equilibrium in the main physiological blood circulation and respiration functions, as well as fluid movement between capillaries and intercellular space, corresponding to normal life activity, through interaction between hydrogen ions and buffer systems when a positive ion binds to a free electron in the physical state of the de Broglie wave. It is suggested that saturating metabolic systems with hydrogen, which is essential for metabolism, occurs in blood vessels through transportation by water flow of blood with the simultaneous recombination of a hydroxonium ion with a hydroxide ion. It is asserted that hemostasis is induced in the water flow of blood as a result of generating a strong internal electric field of nanoelectrets, which is created by the resonant system of stochastic, magnetoelectric fields of the Earth during the formation of electron-ion clusters of hydrogen upon dissociation of water molecules. The concept presented suggests the possibility of destroying a virus by bombarding it with electrons or by inducing a lethal vibration resonance.

**Keywords:** Concept, Blood circulation functions, Fluid movement, Hydrogen ions, Buffer systems of the body, Recombination process, Hydroxonium ion, Hydroxide ion, Stochastic field, Nanoelectrets, Resonance, Biological water bodies, Vibrations.

### Introduction

"Every atom in the human body is made up of electronic vibrations. Every particle of the body, every organ and cell contain an electronic vibrational structure feeding them and maintaining their homeostasis. When this or that organ, this or that part of the body begins to experience a lack of strength for physical existence, it means that this system of the body simply does not have enough electronic energy. This could be due to injury, illness, or some external factor." -Edgar Cayce

The disease is caused not by the bacteria themselves, but by the chemical components of these microorganisms affecting the unbalanced cell, disrupting the metabolism of the human body, which, in fact, gives rise to the disease. -Dr. Rife

The human body, on average, contains about 55-70% of water, therefore, the physicochemical processes occurring in the water

areas of the human body fully characterize hemostasis or the ability to self-regulate the relative constancy of the internal environment of the body, including the ability to establish the lost balance caused by exposure to disease. Water consists of a liquid component, (liquid water), and solid-state associations of water molecules called water clusters. According to the definition of the discovery formula, "New ionic theory of electrets" presented by *ET Kulin* [1] (Hayward, USA) in his edition of June 29, 2018: water clusters are nanoscale associates, (a combination of simple molecules) of water molecules, which contain a positive or negative electric charge, or are electrically neutral. An important feature of liquid water is its ability to spontaneously dissociate. This process is also called self-ionization or auto-protolysis. This is due to the ability of a water molecule to decay into two ions: a hydrogen cation (H<sup>+</sup>) and a hydroxyl anion (HO<sup>-</sup>), with the formation of water clusters, which



are conductors of electric current because they generate an electric field. A characteristic feature of water clusters is the induction of large electric dipole moments. The magnitude and direction of the total electric dipole moment, first of all, depends on the anisotropy of the medium (for example, the value of the electrolyte density index), and the ratio of water molecules with ortho and para modification of hydrogen molecules in dipole clusters. These ionmolecular complexes: H<sup>+</sup> \* H<sub>2</sub>O, (hydronium ion), and HO<sup>-</sup> \* H<sub>2</sub>O, (hydroxide ion), form quasi-dipoles in the structure of the water flow. Following, successively, the process of formation there is a process of their destruction. These processes are due to the ion's recombination: hydroxide ion and hydronium ion. The formation time of the hydronium ion and hydroxide ion is 10<sup>-13</sup>s. The Maxwellian relaxation time of the free charge of the quasi-dipole is estimated at 10<sup>-5</sup>-10<sup>-9</sup>s. The prevalence of the quasi-dipoles formation over their destruction is a necessary condition for the water cluster to generate, without time limitation, an electric field with an intensity from  $10^5$  to  $10^9$ V/m. Due to this, the ionic dipole exhibits the characteristic property of the electret state of matter. From this we can make the following statement that the degree of electret state of the human organism water composition (including blood water flow), determines the degree of hemostasis or selforganization ability to maintain relative constancy of the organism internal environment in the established normal vital activity, as well as the ability to restore the lost balance by recombination of ion-molecular complexes of quasi-dipoles.

However, it should be noted that the level of hemostasis depends on the number of dissociated water molecules and, consequently, the number of ions that have undergone recombination, as the value of this parameter affects the level of energy capacity of the electret state of quasi-dipoles to regulate the hemostasis capacity. This process is carried out by inducing the required value of the electrostatic field strength and the duration of its generation, in order to ionize hydrogen molecules and release hydrogen ions by breaking the hydrogen bonds holding them. To maintain normal vital functioning, nature stipulates that under conditions of a magnetic field, when the energy of an external magnetic field including the magnetic field of the planet "Earth", is evenly distributed over approximately 550,000,000 non-dissociated water molecules, only 1molecule dissociates. 6x1010 molecules are dissociated in 1mm<sup>3</sup> of water. Accordingly,  $6x10^{10}x10^6 = 6x10^{16}$  $\mathrm{H}_{\mathrm{2}}\mathrm{O}$  molecules are dissociated in 1 liter of water. If there are 3.34x10<sup>25</sup> H<sub>2</sub>O molecules in one liter of water, then the value of 6x1016, as a percentage of the total number of molecules, will be equal to 2x10<sup>-7</sup>% or two thousandths of the total number of H<sub>2</sub>O molecules in 1 liter of water, and in five liters of blood in a person, in terms of volume, is slightly more. This level of dissociation is able to provide normative vital activity and metabolism, but it is not sufficient to affect the hemostasis of the lost balance or induced imbalance. Scientists of the Kuban State University BL Aleksandrov, AB Aleksandrov, et al., when investigating the mechanism of water molecules ionization in a magnetic field of a natural background, with a uniform distribution of field energy, calculated the number of water molecules in one m3 of water, which can undergo

spontaneous ionization without additional energy consumption, that is, in an equilibrium state of vital activity of the human body and with a uniform energy distribution of the magnetic field in space [2]. The calculation showed that, at the strength of the natural magnetic field H=105A/m, each water molecule has an electric charge with a value equal to only 1.9x10<sup>-25</sup>J, which is 10<sup>7</sup> times less than is required for its ionization. However, under the influence of the harmonic oscillator there is a concentration of magnetic energy, in a certain part of water, to the necessary level of ionization of some of the molecules. It follows from the above analysis that if the magnetic field energy is evenly distributed in the surrounding energy-mass space, only a small fraction of molecules out of the total number, can reach a state of ionization and, consequently, hemostasis of deviations from the normal metabolism, not planned by nature. For example: when the concentration of water molecules is  $3.34 \times 10^{29} \text{ 1/m}^3$ ,  $1\text{m}^3$  may contain  $1\times 10^4 \text{ H}^2\text{O}$  molecules, in which the ionization potential is equal to the value of the magnetic field of the surrounding space, which allows ionization.

ET Kulin [1], analyzing the formation of electrets, wrote: "Between the moment of formation and the moment of death of the cation-anion pair in the ionic quasi-dipole there is a time during which the hydroxonium cation converges with the hydroxyl hydrate anion and, in doing so, the generation of an electric and magnetic field takes place. This time, which is calculated by the Maxwellian free charge relaxation equation, has a value equal to  $2x10^{-5}$  seconds. Consequently, two hundred thousand cation-anion pairs per second are formed and perished in an ion dipole within a second." Accordingly, when 200,000 cationic pairs are formed and perished in an ion dipole within one second, a normal metabolic process occurs by means of metabolism. This number of recombination operations provides only the vital activity of the biological system, which is in the "ideal" state of the metabolism. The dissociation of water molecules is reversible, that is, the H<sup>+</sup> and OH<sup>-</sup> ions again form a water molecule. Scientists have proved that the final destruction of an atom (in particular, the hydrogen atom) produces elements of the primeval content of gravi-electromagnetic energy-mass, namely, the electron and proton, which in turn is not an elementary particle but a compound of positrons. A positron differs from the electron only in the direction of axial motion and the direction of rotation and, therefore, by moving opposite to the electron, induces a corresponding characteristic of the charge, namely a positive charge in the magnetic field. Therefore, a proton in the composition of positrons and an electron, meeting each other after the restoration of the original state of energy-mass, combine into a hydrogen atom, forming themselves in Benard vortices into a hydrogen molecule ortho or para modification, which corresponds to the state of the so-called "living water". According to Vasily Bukreev [3], when taking medicine, it is not the medicines themselves healing us but the structure that water takes in their presence. In a special way, the chemical substances of which the drugs are composed contribute, under certain conditions corresponding to a given disease, (the lost equilibrium of the constancy of the internal environment in the organism), to inducing equilibrium concentrations of steam and ortho hydrogen modifications of the human physiological fluid, namely: the volume of content: steam -25% and ortho -75%. Therefore, setting the equilibrium concentration of para and ortho modification of the physiological body fluid solution, including the blood water flow, is the final stage of homeostasis. However, as proved by scientists who have investigated the teleportation of DNA from aqueous solutions by irradiation with an electromagnetic wave, the phantom effect of a structure teleportation is possible without taking a drug inside the body. It is enough to dissolve chemical elements in water and put the container for a certain time next to a sick person and irradiate it with an electromagnetic wave of IR photons - then the necessary structure of water will be induced in his body and will work during the recombination of hydrogen ion-molecular complexes. Scientific work in studying and researching the phantom effect of DNA was carried out by the Russian scientist V. Poponin; Dr. Cleve Baxter; and scientists Glen Rein and Rolin McCarthy. Luc Montagnier, a Nobel laureate, and colleagues from France, Italy and Germany have conducted successful experiments to teleport DNA molecules from the cancer virus. P. Goryaev also obtained a DNA phantom by placing a DNA sample in a container and irradiating it with a soft laser (see the article by EP Sidorov [4]. "The "Phantom" effect of DNA" published in the monograph: "The structure of the human universe in the concepts of modern physics", Moscow, Publishing house "Internauka". 2020).

Doctor of physico-mathematical sciences AA Shadrin [5], from the position of modern physics, explains the realization of "phantom" energy-mass reconstruction in water as follows: "Excitation of the medium by IR photons generates light and acoustic photons. The movement of an acoustic or sound wave excites an acoustic magnetoelectric effect, which contributes to the mechanical deformation of the medium (density, temperature, magnetization and much more) toward the direction of realizing the construction of a hologram. On the basis of acousto-optic effects, visualization or receipt and transfer of numerical information of a physical phenomenon, "teleportation" of energy-mass, is carried out due to the fact that a sound wave creates an eddy current of energy transfer and the initial state of a cluster of matter. Thus, a photo-acoustic spectrum of the transferred formation in the environment of the phantom construction can be obtained." In addition to the physical concept of AA Shadrin [5], it is necessary to take into account that in order to induce the transfer energy, an electrostatic field is required (a type of matter that interacts between electrically charged particles), which has the strength and direction of the force action necessary for the transfer of energy-mass. The modern theory of the hydrogen and the water molecule structure, which is represented by ortho and para modification of their dynamic state, describes these atomic-molecular formations as Benard vortices. And these vortices during the movement form a torsion force, which propagates strictly in the direction of movement of its internal flow of electrons and there are no obstacles for it. It is quite obvious that it is the power of conservation of equilibrium momentum emission of infrared photons by electrons, a pair of modifications of hydrogen molecules, which are responsible in nature for generating the structure of "living water". Therefore,

penetrating, like De Broglie wave, through barriers enclosing human body, into physiological liquid photons are absorbed by electrons of ion-molecular complexes and, simultaneously, an inertial force of impulse impact on harmonic oscillator is radiated in the direction of pointing frequency of "healthy" state fluctuations of quantum structure of human molecular clusters. Harmful bacteria and viruses, which have chemical and dynamic parameters of their structure and movement that differ from the primeval ones, also undergo recombination and, breaking down into separate primordial elements, are combined into teleportable complexes. Certainly, for fruitful achievement of this goal, it is necessary to fulfill conditions of set theory, when sufficient number of quantum "tiny volumes", planned properties for full realization of the same properties of the whole is achieved.

Therefore, as we noted earlier, it should be taken into account that, per water molecules, only two thousandths of the body's physiological fluid volume, including blood water flow, undergoes recombination, being renewed under the influence of the harmonic oscillator of the stochastic magnetic and electric field of the planet "Earth", by inducing natural resonances of electric currents of hydrogen ions ionization. Thus, with sufficient certainty, it can be stated that for ionization and recombination of hydrogen ions and, consequently, hemostasis of biological objects in a state of significant loss of equilibrium, (disease), other ways of magnetic treatment and ionization of water molecules in a magnetic field should be considered in order to use high energy reserves of the recombination mechanism, which can be provided by formation and destruction of ion-molecule hydrates during dissociation of water molecules. For example, of technogenic origin.

It is obvious that bringing the mechanism of human organs vital activity to the primeval quality state meets the order of maintaining life and metabolism established by natural norms. However, situations, when "pendulum" deviations of fluctuations from the equilibrium system of vital activity occur, constantly arise in real life. To solve this problem, nature has created a "Harmonic Oscillator" mechanism (this is a system that, when displaced from its equilibrium position, experiences a restoring force proportional to the displacement), which uses the "Theory of multiple fractals" to influence the assessment of hemostasis, the so-called "adders" of interacting biological complexes and their energies, "tiny volumes" of the components possessing the properties of self-similarity of the whole. In the life of all biological systems, there is the effect of synchronization with a stochastic wave field, which was discovered by the German physicist Winfried Otto Schumann. The source of the stochastic field waves is lightning activity in the form of lightning channels, which are formed by recombination of hydrogen ions by emission-absorption of photons by electrons of hydrogen ionmolecular complexes. These fields tune by periodic oscillators the amplitude of the stochastic magnetic field to the internal mechanisms of changing the properties of the biological organism, by its periodic excitation, with the frequency of oscillations synchronized in phase and coherence to the values of the wave primeval indicators. As a result of this process, the recombination of quasi-dipoles occurs, with their destruction into ion-molecular

complexes, followed by decomposition into a hydrogen cation, a hydroxyl ion and three water molecules. This process is called molenization.

$$H^{+} * H_{2}O + HO^{-} * H_{2}O = H_{2}O (H^{+} + HO^{-})$$
 and 2  $H_{2}O$ 

The results of the molenization process quite clearly explain the filling of the recombination of the physiological fluid, (blood, tissue fluid lymph, as well as extracellular and cellular fluid), with hydrogen components, (free hydrogen and hydrogen ions), in conditions of complete absence of their introduction into the body from the environment, such as oxygen intake from the ambient air. This is due to the splitting of two water molecules, which are additionally formed by the recombination of one quasi-dipole during the Maxwell relaxation time of the free charges, namely during  $2x10^{-5}$  seconds.

As we have noted earlier, the *recombination* process is a tool for hemostasis or restoration of lost equilibrium (treatment of diseases) by bringing the biological system to the original ion-molecular state. At the same time, it is a tool for destroying aquatic biological systems of harmful biological objects (viruses, bacteria, fungi, tumors and similar organisms) that do not correspond to normal vital activity of the human organism, with transfer of ion-molecular and atomic quantum formations of water molecules (electrons and positrons in ortho and para hydrogen structures) reduced to their primeval quality state, to the energy-mass building system of the "healthy" human body molecules. However, due to the fact that the duality of the stochastic field synchronization and the human magnetic field has insufficiently high values of electromagnetic energy, the treatment process may be very long or impossible at all, since the number of recombination or renewable rearrangements of the lost electric charge intensity and the possibilities of inducing the electrostatic field for ionization is low. That is, the conditions of set theory are not met. Therefore, the synchronization of the stochastic field and the human field must resonate with an additional external electromagnetic field of a technogenic origin in order to achieve effective operation of the harmonic oscillator. Bringing the energy state of a water molecule and a hydrogen atom to the level of ion-molecular clusters recombination can be achieved in two ways. Firstly, without creating an additional external alternating electromagnetic field: - it occurs when the organism induces resonance of electromagnetic metabolic processes, namely-induction of precession resonance effect due to joint oscillations resulting from changes of forces in the Benard vortex; due to resonance of background concentration of magnetic energy under condition of interference of monochromatic coherent waves, which is induced in blood vessels under condition that product of blood vessel radius value by linear speed of blood water solution flow is 5.8x10<sup>-5</sup>m<sup>2</sup>/s, as well as resonance of electron precession oscillations in vortices of steam and ortho modifications of water Benard vortices, which induce a tangential force increasing energy of energy-mass structure destruction and realize conditions of teleportation of the planned state of water structure. (The mechanism of resonance induction without creating an additional alternating electromagnetic field is presented in the article by EP Sidorov [6] "Physical role of hydrogen

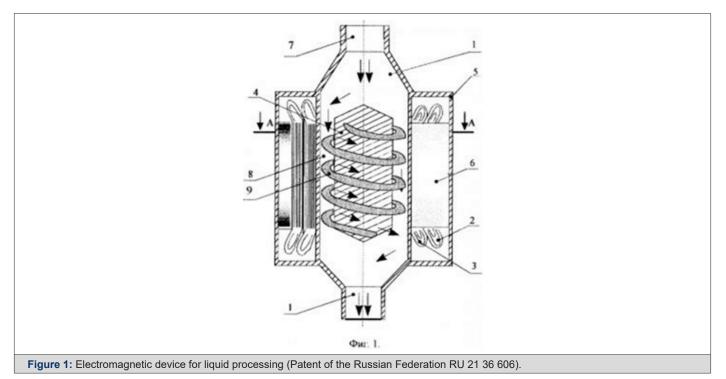
recovery in the life of the human body", UNIVERSUM: Chemistry and Biology, issue 12 (78) 2020). Secondly, during induction and under the influence of an additional external alternating electromagnetic wave field, when the phenomenon of paramagnetic resonance occurs due to the coincidence of energy-mass precession elements and induced threshold value of the magnetic field, above which the destruction of molecular matter occurs.

An example of proof of the effect of electromagnetic fields on the quantum structure of biological objects (humans) is the Philadelphia experiment (Project Rainbow) and the "Third Reich" project "The Bell". Although these experiments had other purposes, the projects directly involved people exposed to varying degrees of recombination of quasi-dipoles in "tiny volume" of hydrates of complex ion-molecular water clusters that met the high level of set theory conditions. Or, more simply, the quantitative level of water molecules and hydrogen atoms dissociation reaching 100%, in an extremely strong electromagnetic field of technogenic generation. Water clusters are liquid crystalline semiconductors of electret state of matter, which is characterized by long-term generation of a strong electric field; that is, when the hydroxide ion converges with the hydroxonium ion at a distance of 0.1 nm and with a natural uniformly distributed magnetic field equal to 10<sup>5</sup>A/m, an electrostatic field equal to 109 V/m is induced. According to set theory, this figure corresponds to the normal energy state of the human body if two hundred thousand cation-anion pairs are forming and dying within a second in the ionic dipole. However, if the external induced magnetic field far exceeds this value and dissociation covers about one hundred percent of the molecules then, according to set theory, during the Maxwellian relaxation of the free charge, the generation of a strong electrostatic field, dangerous for the body, occurs. At the same time, along with the long-term generation of the electric field, a characteristic property of electrons is a thermally stimulated current, which, based on the value of the calculated temperature change gradient, when increasing the electric current indicator, induces a significant value of the temperature indicator. Eyewitnesses of the experiment on board the destroyer "Eldridge" said, 'that people began to smoke, their skin seemed to heat up, some burned for a very long time, much more than an hour...'. This fact confirms the manifestation of the electret structure of ion-molecular formations in a magnetic field with a magnitude of intensity sufficient to ionize almost one hundred percent of water molecules.

Scientists of the Kuban State University, Aleksandrov AB [7] developed the design of the device and manufactured an electromagnetic apparatus for magnetic treatment of flow water to activate the irrigation water for agricultural crops. The device design incorporates both principles of achieving the strength and magnitude of the natural and externally induced magnetic field energy per water molecule, which is required to ionize the ionic hydrogen components of water molecules. This effect is achieved in this design due to resonance of the amplitude of the precession oscillation of the electron in the Benard vortexes, which is induced when the conditions for resonance of electromagnetic processes are met in the elements of structures, corresponding to the approximation

of the empirical dependence: - the product of the radius of the flow pipe on the linear velocity of the water flow must be equal to  $5.8x10^{-5}$  m<sup>2</sup>/s. This design can be adapted for the purpose of obtaining

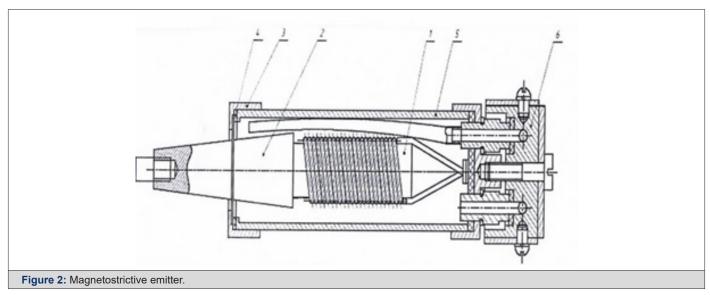
hydrates, ionized ions hydroxyl and hydroxyl ions of hydrogen, for their use in the form of drinking hydrogen water in the internal environment of the human body (Figure 1).



**Note\*:** 1-Outlet nozzle; 2,3-Three-phase stator windings; 4-Fixed rotor; 5-Case; 6-Magnetic stator; 7-Inlet nozzle; 8-Sealed flow chamber; 9-Non-magnetic guide.

It should be noted that the stochastic field of the surrounding space is formed of many wave fields, which induce completely different, in their effect, types of energy indicators leading to the recombination of hydrogen ions during the dissociation of water molecules. Therefore, the sum of the final values of the indicators of the electromagnetic field strength from the resonance of each external wave action is generated. For example, from the devices

generating technogenic ultrasonic vibrations. Magneto strictive emitters, the effect of which is based on the magnetostriction effect, are the most widely used as emitters of ultrasonic vibrations in the range of frequencies capable of resonance with the stochastic field. Figure 2 shows one of such directional emitters, which is designed to influence the water stored in the container (Figure 2).



Note\*: 1-Magnetostrictive transducer; 2-Oscillation transformer; 3-Fastening nut; 4-Seal; 5-Housing, switching unit. The emitter operates as follows.

When an alternating current passes through the winding, an alternating field arises in the rod. It magnetizes the rod. The magnetic field creates elastic stresses and deformations in the direction of the rod axis, i.e. the rod will periodically change its length. Due to the independence of the deformation from the direction of the field, the frequency of vibration of the rod will be twice the frequency of change in the magnetic field. A large number of microscopic deformations of the structure of the ferromagnetic rod occur that are directed in one direction, which leads to a change of length in the direction of the magnetic field, which is the phenomenon of magnetostriction.

It should be noted that after removing the influence of an external magnetic field, which excites ionization of hydrogen molecules and water molecules in the enhanced man-made mode, as well as parameters of resonance effects of precession oscillation of electrons in vortices of ortho and para modifications of hydrogen molecules, water molecules dissociation and ion recombination are again induced in the mode corresponding to the influence of a natural, equally distributed magnetic field of the surrounding space. In spite of the fact that the electret state provides the quasidipole with the ability to generate an electric field indefinitely in time, it will be able to influence hydrogen ion homeostasis only by forces of the stochastic magnetoelectric field, which does not solve the issues of restoration of the lost equilibrium or complex treatment of the body. At the same time, the time interval during which the electric magnetic field generation or the Maxwell relaxation time of the free charge equal to 2x10<sup>-5</sup>seconds per one cationanion pair, will keep all dynamic, chemical and electromagnetic capacities necessary for the homeostasis planned by nature. This time, according to the definition of the theory of fractal sets of the molecular structure of water, for a container with a volume of 1liter, which contains 3.34x1025 water molecules, will be about 25hours. This is the shelf life of ionized water poured into closed containers. As we have shown by the example of electromagnetic devices generating resonance of external and internal electromagnetic field of water, it is proved that the electret state can be artificially created and formed independently. The strength of the electret field reaches values of the order of 107V/m, and its generation can last for tens of months. However, the range of temperature oscillation is extremely insignificant, and the gradient of relaxation time decrease is kind of "enormous", so the healing effect of ion-molecular water can be very low. Therefore, it is required to strictly maintain the conditions for the recombination of hydrogen ions.

At the same time, it should be taken into account that the acidic properties of water are formed by increasing the content of positively charged hydroxonium ions,  $H_3O^+$ ,  $(H^**H_2O)$ , which is part of the quasi-dipole hydrate and it is just hydroxonium, which, in the formed dipole, possesses an elementary positive electric charge and has electret properties of long-term charge generation in the dipole and, accordingly, the implementation of conditions of the set theory of water structuring dynamics. And the proton (positive ion,  $H^+$ ) is too active formation and cannot exist in water in a free state, so it can not affect the change in the acidic properties of water. This fact shows that the regulation of the acidity of the medium must be carried out by the oscillation of hydroxonium ions.

Nature presents us examples of water formation with induced conditions of recombination and homeostasis of hydrogen ions in it, which are generated by natural stochastic regional electromagnetic fields and natural dynamic resonances of sources of mountain flows water outflow and old served-up mines. These abilities of nature are recognized by scientists as a currently unexplained miraculous "phenomenon. There are two sources of water with signs of hydrogen ions recombination in Europe, these are: - the source of Lourdes, the city of Lourdes in France, which water has the pH of 800.0ppb, 0.8mg/l and in the village of Nordenau in Germany, Nordenfuer mine, where the pH value in water is 420.0ppb, 0.42mg/l. You should imagine that the pH value in ordinary tap water is 0.018ppb. The hydrogen index is not an indicator of the molecular hydrogen presence in a water volume, but the ratio of H<sup>+</sup> and OH<sup>-</sup> ions in water, which are formed during the water dissociation. Therefore, the expression-hydrogen water, is not natural; this is ion-hydrogen water. In the cave of Nordenfuer instruments recorded a pulsating electromagnetic field; the air is about 100% saturated with hydrogen ions; the temperature of air and water is constant at all times of the year and equals 7 degrees Celsius; and the following unexplained properties of water were also recorded: - water is 8.0% lighter than ordinary water and acquires a right-side rotation when it drains (in the northern hemisphere the natural rotation, when water drains, is left-side rotation). Almost all visitors to the spring, after drinking water in the energy zone, after about five minutes begin to feel the vibrations of the fingertips, as if they were under the influence of a weak electric current.

Dr. Gadeck, chief physician of the Witenberg Oncology Hospital, conducted a study in which he interviewed 515 patients who were receiving a comprehensive treatment at the Nordenfuer mine and presented the results in his book "The Nordenau Phenomenon". In the outpatient records of patients, he recorded 14 cases of presumed "spontaneous remission," that is, complete cure of cancer after a stay in the cave. The head physician of the Tommes sanatorium, Hans-Jürgen Steinbrück, conducted a methodical trial with the participation of 200 cave visitors. The following results were obtained: 30% of visitors are completely cured; 28% noted a significant improvement in health; 26% noted certain improvements. Researchers at Dr. Knapp, who have studied the source water for their treatment concepts through electrography, have found that the electromagnetic energy emitted from the source water is many times greater than that of water taken from a spring close to the mine. Japanese microbiologist Professor Shirahata Iiesu conducted a study of water from this source and made an attempt of man-made production of similar water for long-term storage in various containers, which, however, in my opinion, without inducing, simultaneously with its drinking, a recombination of hydrogen ions or drinking without taking into account the time of Maxwell relaxation of the free charge of electret, is not effective.

Scientists from the "Institute of Theoretical Chemistry" USA, Massachusetts, conducted research and calculations regarding the hydrogen molecule stability. The article, "The Energy of a Water Molecule," explains this problem as follows: "When a hydrogen molecule is formed, two electrons, which until then belonged to two

different hydrogen atoms, begin to rotate in a plane perpendicular to the axis connecting the nuclei. During the formation of a covalent chemical bond due to the transition of electrons from one atom to the outer shell of the other, energy is released, which is the affinity energy of the hydrogen atom for the electron, namely 0.72eVx2. At the same time, during bond formation electrons and nuclei approach each other, which leads to a loss of energy. The loss of energy due to the repulsion of nuclei is about 9eV. That is, the hydrogen molecule cannot be stable in accordance with these values of energies." The same conclusion about the instability of all modifications of hydrogen molecules corresponds to the hydrogen molecule existing in nature, the reality, for example, the ion H<sup>+</sup>, of hydrogen molecule. When the ion  $H_2^+$  of the molecule is formed, energy is not released but, on the contrary, its loss is 167kJ/mol. Thus, according to the calculations of the scientists of the Institute of Theoretical Chemistry, the hydrogen molecule ion is extremely unstable. Accordingly, when a single electron detaches from a hydrogen molecule, it disintegrates into a hydrogen atom and a proton, which immediately finds a free electron. The described hydrogen formations cannot generate an electret state and, accordingly, cannot have a time of Maxwellian relaxation, which allows the ion-molecular complexes in the quasidipole state to generate electric and magnetic fields, and allows the water saturated with them to retain a long-term guarantee of goodness. Therefore, molecular hydrogen, due to its inertness in terms of electromagnetic field generation and dynamics of structural states, has no possibility to influence homeostasis of the human body.

However, in contrast to the hydrogen molecule, ion-molecular hydrogen nano-formations, in the state of recombination by the stochastic magnetic field, are provided by nature to perform the role of a technological mechanism in activating metabolism. An example of this is the research of Doctor of Biological Sciences G.A. Garbuzov, which he described in the book "Hydrogen ions cure cancer". The scientist found out that the absence of electric charges possessed by hydrogen ions stops gas exchange in the lungs. Garbuzov conducted experiments with mice, which were placed in two sealed boxes. One was supplied with room air, and the other was supplied with air with neutralized electrically charged particles. In the control box, the mice felt great, in the second they died, according to his assumption, from oxygen starvation. However, this was due to the absence of ion-molecular hydrogen complexes. This experiment not only confirms the dominant role of hydrogen ions in the normal life of the organism, but also, upon closer examination, reveals the mechanism for fulfilling this role. The absence of electric charges is not a diagnosis, but a natural infliction by nature or life circumstances of a situation when the electret state of quasi-dipoles is induced, which precludes the generation of a full-scale process of metabolism. This is both induction of magnetohydrodynamic effect of vortex jet-axis blood water flow by means Lorentz forces and, regulation of heart operation by opening and closing of valves through the influence of electromagnetic state of hydrogen ion-molecular complexes on pressure and speed of blood water flow, as well as process of recovery of water composition of all human body fluid. The absence of hydrogen ions recombination leads to a complete stop of the process of generating vital organs. Modern Academic Notions of science are

unable to explain the phenomenon of homeostasis of the structure and dynamics of water from the Nordenfuer mine source. Dr. Gadek wrote: "We're in front of a real phenomenon-it's unnerving."

We will try to explain this so-called "phenomenon" from the standpoint of the modern physics concepts. Scientists of IGD SB RAS Perfiliev MS Novosibirsk [8], discovered the dynamics of electromagnetic radiation of rocks, and the results of the study of this discovery at the proper scientific level explain the excitation of pulsed electromagnetic oscillations of stochastic fields in the cave of the mine. Rocks and ore bodies during fracturing emit electromagnetic waves in a wide frequency range. The nature of this phenomenon is associated with the movement of dislocations carrying electric charges in a field of high mechanical stresses. Another source of radiation is exoelectrons, (exo: - an external, outside element in an unbound state) which undergo exoelectronic emission when the energy required for exoelectron's escape from cracks is released in the process of an atom (in our case, a hydrogen atom) transition from a weakly bound state to a more bound state on the surface. The oscillatory movements of the charged "banks" of cracks, the interaction of electric charges and the passage of electrons, lead to the appearance of electric currents and the formation of stochastic electromagnetic fields. The pulsation of the electromagnetic field in mine workings can be explained by pressure fluctuations in the mine workings, associated with the fluctuation of the mountain pressure (i.e. deviations from the mean value of a random value). As well as with a long relaxation time of resonant manifestations of flowing water with electromagnetic radiation from rocks. When exposed to electromagnetic radiation, energy accumulates in the cluster structure of water, up to a value of 500-1000 times more than the energy of the electromagnetic field. This is the relaxation time and the stopping time of the oscillation pulse of electromagnetic fluctuations.

At the same time, the mine is a shale mine. Typically, the proportion of kerogen in oil shal can reach 30-70%, and this organic, hydrocarbon component of shale produces shale gas the basis of which is usually hydrogen ( $\rm H_2$ ) from 25 to 40% and methane ( $\rm CH_4$ ) from 14 to 17%. Obviously, the vibrational movements of shale rocks generate the release of pure molecular hydrogen, which undergoes recuperation and recombination under the influence of electromagnetic radiation of the pulsations of electromagnetic field in mine workings, creating micro dipoles of the electret state, which, in turn, interact with water molecules in the direction of creating water clusters. In 2014, American scientists discovered a water cluster in water, which consisted of 21 molecules ("OH.  $\rm H_2O$ ) and had a relatively high mechanical strength and high thermal stability. From Rudnik (Figure 3).

At present, scientists are laying the theoretical foundation for a new direction in the science of the Earth-the rock science. The existence of pendulum-type waves and their material carriers from nano-submolecular to fractal materials, commensurate with the size of rocks, was discovered. The scientist of the Institute of Rocks, VN Oparin derived by mathematical way the coefficient of mechanical-electromagnetic transformations, which being applied to the proposed formula helps calculating the accumulated and

radiated electromagnetic energy of a rock formation. Obviously, the values of indicators of the electromagnetic field induced by the electromagnetic radiation of the Nordenfuer mine rocks, as well as its frequency of the periodic oscillator, enter into resonance with the electric charges of the water ion-molecular complexes and, thus, the hydrogen ionization energy is generated by breaking the bond between the hydrogen and hydroxyl in the water molecule. As a result of this process, recombination and homeostasis of hydrogen ions occurs and the electret state of the quasi-dipole is induced. As we noted earlier, the electret state of the human physiological fluid (including the water flow of blood as an electrolyte) is characterized by a long-term generation of a relatively strong electric field. The carriers of these charges in water clusters are ion-molecular complexes forming an electric field of a dipole configuration, while there is a constant emission of photons by electrons located at the interface of the physiological tissue fluid and the environment - air, which is 100% saturated with ion-molecular formations of water

and, simultaneous absorption of these photons by electrons of air nano electrets. With the joint emission and absorption of photons, an inertial impulse force which transforms and condenses the electrical potentials in these electrons is generated in order to maintain the equilibrium average energy of the system. Doctor of Physical and Mathematical Sciences, FM Kanarev [9] characterized the appearance of sparking and crackling on the pads of the fingers: - "This force creates conditions for the formation of clusters of electrons by connecting their opposite magnetic poles, the process is accompanied by the emission of photons, which we observe during the formation of an electric spark. The crackle accompanying this process is a consequence of the rapid formation of the electron cluster and the simultaneous emission of photons by all of its electrons. The reason for the crackling is the excess size of the photons emitted by the electrons. They are five orders of size larger than the size of the electrons themselves".



Figure 3: In the Rudnik's driftway.

A characteristic feature of the electret field generation mechanism is its temperature dependence. When the temperature changes, the direction of the electric field flow changes. We know that individual ions, dipoles and quasi-dipoles of hydrogen, moving in the water flow are affected by the Lorentz force in an external electromagnetic field, which twists their trajectory into a spiral and excites the spiral-axial rotation of the water flow. And a change in the flow direction of electric current (according to the rule of the left hand) changes the direction of rotation. A scientist from the USA ET Kulik [1] published in his article: "Ionic theory of the electret state of water" the results of his study of the generation of a longterm electrostatic field by a thermally stimulated current of the electret state of structured water. It follows from his research that a change in temperature can thermally stimulate the direction of an electric current movement. And this leads to a certain direction of the dipole's movement.

If we "descend" to the level of the dynamic structure of atoms and molecules, namely, the structural units of the electrons and positrons motion, we will see that the processes involve not hydrogen molecules, but hydrogen Benard vortices. Water molecules need to subject to the rules set by the Benard vortex. That is, along the internal flow of the vortex, they must move upward, with one direction of rotation, and they must move with the opposite direction of rotation along the external flow of the vortex. The internal and external flow correspond to the ortho or para modification of water molecules. Each temperature has its own equilibrium concentration of water vortices in the ortho and para modifications and, accordingly, preferred direction of rotation of the water cluster, which is generated, by the conditions of set theory, into a fractal dynamic action. All driving forces acting at the level of matter are initiated by transformations occurring in the microcosm of molecules, atoms and elementary particles and are subject to the laws of quantum mechanics. All structural elements of the macro and microworld have a homogeneous essence and differ only in the degree of compaction, which allows the researcher to present, during experiments, the probability degree of indicators and refer them to the calculated units of the micro or macrocosm. In reality, the concentration of para and ortho modifications of water molecules depends on the complex of external forces affecting the state of water, as well as on the shape and size of the transporting devices of its flow.

These are both tangential forces of precession (forces, friction-sliding, arising between the contacting layers of Benard vortices) and the forces of electromagnetic action of ion-molecular dipoles. An example is the processes occurring in the Laval nozzle. In the converging cone of the nozzle, Benard vortices of the right rotation direction are formed, moving in the direction of the flow. In the diverging cone of the nozzle, the left direction of movement is induced. Therefore, Benard vortices with the right direction of rotation, falling into the diverging cone of the nozzle, are rearranged to the left direction of rotation, creating a turbulent spray at the exhaust of the tube and vice versa. Possibly similar flow conditions of the mine's water source affect the change in the direction of rotation of the jet flow.

Physicists have a legend, which is confirmed by calculations that during the existence of the Sun, the electrons of the atoms of its chemical elements emitted light photons, the mass of which is equal to the mass of the modern Sun. Electrons of the hydrogen atom, when ionized, emit and absorb photons of the relic range. The mass of motion of one such photon is presumably equal to  $6x10^{-16}eV$  (from the point of view of classical quantum mechanics, a photon, as a quantum particle, is characterized by a wave-particle dualism, it exhibits both the properties of a particle and a wave). Since a photon has a mass in motion, it also has a center of mass, that is, a point to which the entire mass of a photon can be reduced, and the movement of this point will characterize the movement of photons. The wave properties of a photon indicate that this point (center of mass) describes a wave trajectory. And this confirms the particle-wave dualism of photons. Since a photon has a mass and an electromagnetic nature, we have the opportunity to assume that the photon's mass is formed by its electromagnetic fields. Therefore, at the moment of emission of each photon, the electron loses energy,

which was transformed in the electron as energy-mass, respectively, the substance loses a mass adequate to  $6x10^{-16}eV$ .

The relaxation time of radiation-absorption of photon will, presumably, be equal to 9.0x10<sup>-13</sup>s. It is quite obvious that a part of photons will fly through the boundary of water floow and will be absorbed by electrons of hydrogen atoms, which are in the environment, in the air. Thus, there is a process of formation and recombination of hydrogen ions and saturation of the surrounding air with them and hydronium ions, as well as the formation of hydroxyl hydrates with a solid state of the hydration shell. With a sufficiently high photon energy, the formation of new hydrogen atoms becomes possible, which occurs during the formation of an electron-positron pair. In this case, the photon is absorbed by the field of the nucleus (proton), and an electron and a positron are born. Thus, saturation with hydrogen ions, atoms, ion-molecular dipoles, as well as hydrated nano formations occurs in the air of the cave.

ET Kulin [1] described this phenomenon as follows: "In the spherical zone around the formed complex ions, an electrostatic field is instantly established, intensity of which at a distance of 0.1 nm from the elementary electric charge of a pair of unlike complex ions, representing a dipole, will be about 10° V/m and will decrease inversely proportional to the second power with increasing distance". This electromagnetic state of the ion-molecular structures of the hydronium ion and the hydroxyl ion is generated by a very large amount of electricity and, accordingly, attraction to each other. Therefore, they appear in a single bundle as a quasi-dipole and are, in the surrounding space, in a free state and are not affected by the magnetic field of other hydration complexes of water. Figure 3 shows a quasi-dipole in the ambient air (Figure 4).

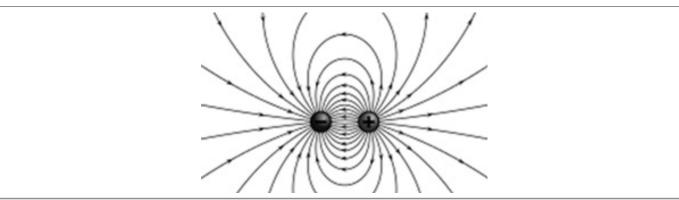


Figure 4: Hydration cluster and lines of force of the quasi-dipole electromagnetic field.

The lines of force of the electromagnetic field are induced by the electric potentials of hydroxyl hydrate, ( $OH*H_2O$ ) and hydronium cation ( $^*H*H_2O$ ) and form a hydration cluster.

With a fair degree of certainty, it can be argued that the photons emitted by the hydrogen electrons of the water molecules from the source are subsequently absorbed by the electrons of the ion-molecular complexes, which are in a state of saturation in the surrounding air of the cave. And, leaving the water molecule, during relaxation, (their lifetime), they contribute to a decrease

in the density index of individual structural nano-formations of the source water. Accordingly, in conformity with the set theory, a decrease in the specific gravity of the fractal integrity of the water flow flowing from the water source is generated. In our case, with the given indicators of electromagnetic fields, air saturation with hydroxyl hydrates and electric charges of the electret state of ion-molecular complexes of the source water flow, this indicator is 8% of the normal value of the specific gravity of water. The presented concept of saturation of the air of a closed mine cave with hydrogen ions, by their recombination in a stochastic and induced by a complex

resonance external and internal electromagnetic field, seems theoretically provable from the scientific point of view of modern physics, and reduction of the source water specific weight by emitting photons by electrons of source water molecules and their absorption by electrons by ion-molecule complexes located in the cave air saturated with them seems quite a real process.

The process of human body saturation with hydrogen ions occurs as follows. Ion-molecular hydrogen hydrates, together with the inhaled air, penetrate through the alveoli into the capillaries, and from there into the pleural fluid. With each breath in a healthy person every day, (within 24hours), 10-15liters of pleural fluid is formed and resorbed, of which 19-20ml remains in the pleura to renew the existing fluid. The system is supplied with fluid in the parietal pleura by capillaries from the vessels, the intercostal and diaphragmatic arteries of the systemic circulation. Thus, the pleural fluid is transported by the pulmonary lymphatic capillaries to the diaphragmatic part of the lung, where it undergoes reabsorption and simultaneous recombination of hydrogen ions received with air by the vessels of the pulmonary circulation in the visceral pleura. Here, an aqueous solution of blood is used by the body as a "building material" to create a solution of the water flow of blood by saturation of chemical elements necessary for metabolism. It is in this area of blood vessels that the water component of the blood is split by the forces of implosion of rotating internal ionmolecular hydrates, as well as quasi-dipoles brought in from the surrounding air environment. During this period of relaxation, there is a distribution, introduced by electrets, of the new energy of the environment of the nano-elements of the structure of the water flow of blood. This energy generates renewal and bringing it to the original state of quality, due to the energetic interaction of electrons of hydrogen and water molecules, by radiationabsorption of photons, or, in the general case, homeostasis and treatment of diseases. As well as oxygen-ferrous hydrates, hydrates of hydronium cation and hydroxyl hydrates are transported in the water flow of blood, which is an electrolyte, by Lorentz forces, due to the magneto-hydrodynamic effect of the appearance of a vortex helical jet-axial motion. Under natural conditions, there is an ordered movement of ion-molecular dipoles in the magnetic stochastic field of the surrounding space with water molecules dissociation corresponding to the recombination of hydrogen ions in the course of the normal metabolic process.

The introduced complex ions (dipoles) have an increased electric charge, which generates a water flow of blood in the vessels in the form of a vortex, and a critical, for the destruction of molecules, speed of motion. From the standpoint of electrodynamics, it is necessary to speak not about the Lorentz force, but about the moment of forces. These are all the Lorentz forces that do the work of bringing complex ions in a water cluster with water molecules, into a vortex jet motion. These are stochastic and technogenic electromagnetic fields in a state of resonance, and tangential forces of precession of vortex rotation of the water flow of blood, in a state of implosion, and many other forces. All these forces can be generated, being brought into the blood from molecules and atoms of hydrogen and water ionized in the source,

which are in the form of ion-molecular water clusters-hydrates in the electret, highly electro-charged state of dipoles, in the surrounding air of the mine cave. At the same time, in all cells and other, limited by shells, capacitive volumes of an aqueous solution of the human body, nano-particles of water are in a state of vortex rotation of a stationary source in the form of Benard vortices and are characterized by the dynamics of movement of the elements of ortho and para hydrogen modification. Their axial movement is limited by the forces of attraction and repulsion of the external and internal flows of para and ortho states of hydrogen molecules in interaction with the positrons of the nucleus. The introduction of ion-hydrogen clusters enriched with the ion recombination energy in the electromagnetic field of the mine generates an intensification of the process of harmonic energy-mass fluctuation. As we noted earlier, treatment of diseases with "living water" is possible when its structure is brought to a state where it contains 25% para and 75% ortho hydrogen. And this can be achieved only by increasing the level of the water molecule fractality in the direction of equilibrium of para and ortho modifications of hydrogen that are established by nature. Therefore, if the harmonious fluctuations of fractality have sufficient electromagnetic strength to keep the energymass in equilibrium or to act towards restoring the lost balance (treatment), then a "healthy" way of vital functioning of the human body and its independent or technogenic treatment is provided. However, if the indicators of the set theory do not reach the level of the fractal filling of the electromagnetic field and the harmonious oscillator, then it is necessary to introduce additional energies of hydrogen recombination, which can carry out hemostasis of the sick organism.

Modern physics, studying viruses in terms of their physical properties and interactions with other elementary particles, has advanced two theoretical scientific concepts for treating viral infections by destroying the biological structure of the virus. First: - intensive "bombardment" of the virus with free electrons, which are detached from atoms, molecules and ion-molecular complexes of hydrogen and water during their ionization. Professor of the "Far Eastern University" V.A. Kontur proposed a virus model for calculations, which assumes a close relationship between the wave properties of viruses and their geometry. For example: the COVID 19 virus has dimensions in the range of 70...160nm, a bio-resonance frequency of 400...500Hz, a mass of  $8.5x10^{-22}$ kg and an average speed of movement within a cell of  $0.9x10^{-6}$ m/s, (90nm/s) (90hm/c-seems to be erroneous:  $0.9x10^{-6}$ m/c=9 hm/c, Note. Editor) The de Broglie wavelength is determined by the formula:

 $L_{COVID~19}$  =h/mv =6,626x10<sup>-34</sup>/0,85 x10<sup>-21</sup> x 0,9x10<sup>-6</sup> = 8,67x10<sup>-7</sup> = 867 nm

It follows from de Broglie's wave theory: - if the de Broglie length for a given particle is greater than its size, then the virus, as a physical object, simultaneously possesses both corpuscular and wave properties.

The human blood contains 78-82% of water, all transformations in aqueous solutions, up to the creation and production of human blood, occur by the internal forces and energy potentials of

water through the disintegration and synthesis of its constituent microelements. The water is in constant motion. There are no static forms of matter in the Universe at all - all the elements of matter move with a certain frequency. An aqueous solution of blood is an electrolyte in the human circulatory system and is constantly in a state of two types of motion. In all blood vessels, a vortex helical jet-axial directional rotation of the blood flow is performed. (see the article by Sidorov EP [6] "The physical nature of the blood flow at the levels of compaction of matter in the micro and macrocosm"). This movement is induced by Lorentz forces due to the magnetohydrodynamic effect of the appearance of an electric field and an electric current in the flow of electrolyte (blood) crossing the lines of force of the Earth's magnetic field. In all cells and other closed capacitive volumes of an aqueous solution of the human body, including in the body of a virus, water is in a state of rotation of a stationary source, activated by the angular momentum of the orientational polarization of molecules and corresponding to the Tornado law. Orientational polarization excites blood rotation by orienting molecules, which have their own dipole moment in water. When they are introduced into an electric field, which is always induced or exists in the external environment (for example, a blood flow), a rotational moment of forces acts on the dipole. At the same time, a rotating cluster induces an alternating electrostatic field according to the Tornado law and, accordingly, an electric current. From these scientific physical concepts of the universe of matter, we, with full confidence, can assert that the virus, getting into the extracellular flow of blood solution, acquires electrical energy, which, under the influence of external directed energy excitations, is able to generate the whole triad of "dormant-neutralized" and always interconnected monopoles - gravitational, electric and magnetic.

When a virus enters an aqueous solution of blood, which has the energy potentials of gravitational electromagnetic fields, it is exposed to the excitation of its "dormant-potential" energy fields and the values of its own electric potentials of the triad of energies are induced in its structure, which induce a vortex radial-axial rotation of all elements of energy-mass of the virus. Thus, its life force and energy of movement are excited. It is necessary to take into account that all actions occur at speeds close to light velocity, so it is practically difficult for us to understand them with our mind and evaluate them in the SI system. Since the COVID-19 virus has a particle-wave structure, it has wave properties of diffraction and interference. As noted earlier, the sum of the photons triggers all biological reactions. Responding to the energy potential of the environment excitation and using the property of diffraction and interference, the sum of the photons of the virus under the influence of an electric field pulse, in the form of a directed charge of electric current, which is induced as a result of the magneto-dynamic effect of the jet-axial implosive rotation of the blood flow, is emitted from the electrons of the virus's own structure, including RNA electrons, into the erythrocyte's own clusters. In the size of the de Broglie wavelength, this sum of photons, an energy object is found, whose charge has the value of the electric current potential to absorb photons and emit the next sum of photons in the direction of the virus. An erythrocyte, like a virus, has the ability to emit and absorb

photons with its electrons, under external energetic excitation. First of all, gravitational photons (quanta of the gravitational field, gravitons) are activated, then quanta of the electromagnetic field and gluons, causing the action of phonons (quanta of the vibrational motion of crystal atoms). A virus moving arbitrarily in the blood plasma among erythrocytes with the property of gravity (an object capable of emitting gravitational photons) has the ability to absorb these resonant photons and receive an impulse in the direction of the erythrocyte. A chain of such absorptions leads to the fall of the virus onto the erythrocyte body, and the further development of the impulse force pushes it through the membrane into the erythrocyte body, to the point of guidance of a stationary source. At this point of the cell the teleportation of first the RNA and later the whole virus begins. Since the electron has an undeniable mass and charge, it can make up the essence of a quantum and a photon, forming them from its own body. Thus, a stationary source is excited, which has the potential energies of the triunity of fields expressed in grainspotentials (structureless quanta) and secondary structural photons, which are successively emitted and absorbed by the stationary source and the energy-mass of the virus. These processes are excited by the inertial force of momentum conservation, which is capable of transforming and condensing the gravi-electromagnetic potentials of the fields in these objects. The volumetric structure of stationary sources of the primary phase is formed by an internal and external physical field with a mass for the gravitational field and an electric charge for the electromagnetic field, and the external field is created by a dynamic flow emitted by a wave of grainsgravitational potential of all its atomic nuclei. At the same time, the orientational polarization of the dipole structure of the cluster leads it to rotational vortex motion, which initiates charge pulses of induction of energy fields in interacting structures. When these charges act on spaces of force around stationary sources, fields of nuclei and a shell of electrons, oscillatory processes of decay of old nuclei and synthesis of new nuclei, atoms and molecules are excited in this closed volume controlled by the forces of energy fields. Wave fluctuations occur both in the primary internal microfieldscontours-shells of elementary particles, and in the clusters of the macrocosm. These fluctuations are induced by the inertial force of the pulse of absorption and emission of photons to maintain the equilibrium average energy of the system, as well as to excite multiphoton ionization. The values of the oscillation frequency are generated by the oscillator of the stochastic electromagnetic field when the fluctuation of the degree of ionic bond is influenced by micro fluctuations of the total relative electronegativity on the Pauling scale.

As a result of the construction of a phantom on the axis of a stationary source, a reflection of a cluster of atomic-molecular matter is ultimately created, it is carried out by triads of vortex fields of various mixtures of grains-potentials and is in equilibrium with its external fields from these grains-potentials. An aqueous solution of erythrocytes comes to a state of its disintegration due to the splitting of its own substance up to the energies and elementary particles, from which the structure of the virus occurs as follows.

The Universe is governed by the law of pairs and opposites of mutually exclusive interactions, based on the law of conservation of

equilibrium of inertial force of pulses of radiation and absorption of photons and equilibrium entropy. It is important to understand that the world around us consists of photons, which density is higher than the density of air. Along with the disintegration of substances, sound simultaneously recombines and builds new ones. As a result of the interaction of photons (acoustic and optical phonons) with various excitations of the medium, the motion of an acoustic wave is induced and an acoustomagnetoelectric effect arises, that is, induction of an Electromotive Force (EMF) under the action of an ultrasonic wave. At resonance of wave formations with water, there is a transformation of EW energy (Electromagnetic Waves) into sound and vice versa, as well as mutual modulation. The wave formations born in this way in the wave structure of the virus, in EW photons, in sound waves - mechanical vichrons and optical phonons (quantum of vibrational motion) during the passage of an aqueous solution of blood of erythrocytes, create their own waveguides at the energy point of the medium (water molecule), which turned on into the history of absorption and emission of the sum of photons of the virus when it is electrically excited. Eddy currents appear along the waveguides in spirals from grains-potentials (electropotentials and gravipotentials), which form energy fields for the stable location of the birthplace of the energy-mass of the virus. At the same time, a sound wave carries the general state of the teleported virus - density, temperature, magnetization and others. In this case, a spatial modulation of the optical properties of water arises due to the elastic-optical or photo-elastic effect, which determines its dynamic and optical activity. Based on acoustic and optic effects, the photoacoustic spectrum of the virus substance is visualized and, by means of diffraction of the light phantom of the virus wave on ultrasound, transferred into the energy-mass of the teleportant, in order to implement the construction of the virus hologram. At this stage, the aqueous solution of the erythrocyte blood begins to build the elements of the virus phantom, namely, the atoms and nuclei of the substance, the living growth of the virus phantom cell and the RNA chain, which controls the correctness of holographic reproduction. The photo-acoustic holographic spectrum of the substance is induced - a complete analogue of the spectrum of the transferred formation. Further, a point stationary source, which is brought into vortex axial radial rotation, is induced for each element of the hologram and begins to transform into a homogeneous multilayer entity from elements of the micro and macrocosm according to the "Tornado" law. Under certain energy states of an aqueous solution of blood and external electromagnetic excitation of the virus, it is attracted to the process of teleportation into the energy environment (gravi-electromagnetic field) with potential values initiating the process of physiology of the functioning and regulation of biological systems in the virus, based on the law of conservation of the average energy of the equilibrium energy-masses structure. Thus, a single multilayer physical formation of the micro and macro world elements is created, which has a homogeneous essence, coherence and determinism, differing between the layers only by the degree of compaction and the speed of movement of particles, as well as the degree of probability of their location.

The virus can be in the body both as a nano particle with a

constant phase of oscillatory motion in space, and as in the form of a wave of energy transfer of fluctuations. The integrity of the energy-mass of this formation is determined by the magnitude of its electric charge, and the rupture of this integrity is generated by the violation of the life of this mass energy, (that is, the violation of the conductivity of the dielectric). This can be achieved by "shooting through the energy-mass of the virus" by a much dense particle that has a smaller size of its own energy-mass, and this can only be an electron. Along with the violation of the integrity of the energy-mass, the destruction of the virus can also be achieved by inducing a resonance of the vibration frequency of the virus with the frequency of man-made external vibrations, in order to destroy the non-polar bonds of electrons and atoms of this viral biological formation.

E.G. Yakubovsky, scientist physicist studied the wave state of viruses and presented it in the article "Physical properties of viruses as a special solution of the Klein-Gordon equation." To evaluate the presented concept, the calculated data were applied by the author from this article. The size of an electron is much smaller than the size of a virus and is  $7x10^{-7}$  parts of it. The density of the virus is approximately equal to  $10^{-5}g/cm^3$ , and the density of the electron is 3.78x10<sup>3</sup>g/cm<sup>3</sup>. If an electron collides with a virus, then a denser particle, the electron, will cut the virus, creating a hole in it. When bombarded, the structure of DNA or RNA can be disrupted. E.G. Yakubovsky theoretically showed that the electron exhibits corpuscular rather than wave properties. With a concentration of 6x10<sup>23</sup> electrons, we determine the electron free path, that is, the distance that an electron must travel to collide with a virus, it will be 3.36x10<sup>-12</sup>cm. The wave function of the virus is characterized by complex dimensions, that is, reflecting its electric charges per space of its own energy-mass. With a concentration of viruses one million in one mole of space, each virus experiences a collision rate equal to 3.46x1017 times per second. When interacting with a virus, an electron exhibits corpuscular properties, since its density is  $10^8$ times greater, therefore an electron, due to its many times greater density than a virus, will exhibit corpuscular properties, not wave properties. It will behave like a bullet, and with a density difference of 4x108 times. During the lifetime or decay time of the virus, equal to 10<sup>-16</sup>seconds, 34.6 collisions occur, which cause disappearance of some of the viruses. Despite the "shooting" by extremely small electrons in size, the shape of the virus under normal conditions of its life is preserved, and its energy-mass, by dissociation of water molecules that make up the virus, (approximately 2.1x108 H<sub>2</sub>O molecules), and recombination of hydrogen ions, carries out hemostasis of its own organism, by using the energy of the stochastic field.

E.G. Yakubovsky concludes that nature creates conditions for the reproduction of viruses by the method of "bombarding" the virus with electrons, however, if we determine through research the required number of collisions (shots) of the virus with electrons, which will lead to irreparable loss of its vital activity, then this concept can be accepted for the treatment of people from viral diseases. And today there is a spontaneous recovery of viral patients under the influence of a stochastic electromagnetic field, amplified by resonant

fluctuations of natural wave formations of the environment, as, for example, in the cave of the Nordenfuer mine.

The second method of treating viral infections, which our modern physical science offers, is the induction vibrations, lethal for the structure of viruses. Each biological entity at the level of elementary particles tends to have an inherent degree of ionicity of the chemical bond, which is characterized by the distribution of electron density in space around the nuclei. The degree of ionic bond is formed in a molecule by the value of relative electronegativity on the Linus Pauling scale. For binary molecules of identical atoms with the same value of relative electronegativity, non-polar bonds are induced, in which the centers of gravity of positive and negative charges coincide. Therefore, there are no or there are extremely insignificant dipole vibrations in non-polar molecules corresponding to their stable state. And polar molecules with polar ionic bonds, being in a constantly changing stochastic magnetic-electric field, continuously oscillate about a certain average value of the oscillator and they can be considered as a set of micro dipoles that are rapidly changing in magnitude. Therefore, biological compounds from polar molecules can be subject to resonance, with biological formations from nonpolar molecules introduced from outside, with the same value of the degree of bond ionicity or Pauling's total relative electronegativity of this formation. And undergo disintegration in the end.

As we noted earlier, the stochastic field of the surrounding space constantly, through the action of a harmonic oscillator, affects the micro and macrostructure of living biological organisms, in the direction of their improvement and finding vital activity in an equilibrium state. This also applies to the life of viruses. Therefore, to ensure lethal pathogenicity for the existence of the virus, it is necessary to generate man-made or natural, stochastic resonance of the electromagnetic field of coherent monochromatic waves with an oscillation frequency having a molecular vibrational speed sufficient to destroy the virus. Or to bring an electrochemical element of polar molecules, identical in terms of the degree of ionicity of the bond, into direct contact. There are examples of natural induction of such conditions for the destruction of the virus, these examples include the phenomenon of the source in the cave of the Nordenfuer mine.

Back in 1934, in the USA, Dr. Rife conducted scientific research on the successful treatment of cancer patients by influencing viruses and viral formations with the resonant frequency of an electromagnetic field. Dr. Rife invented and manufactured an apparatus combining a microscope with a quartz prism to polarize light, in which light waves vibrate in all planes, splitting into beams of a certain color band, one of which vibrates in a resonant mode, since it has wave characteristics that exactly match the spectrum of the body of a virus. The second device of the apparatus is an irradiation tube connected to the structure of the microscope, which works in parallel with the microscope, in terms of targeting, irradiating effect, exactly at the virus. The result of this impact is a disintegration of the energy-mass of the virus due to the disintegration of its integral structure, by induction of the resonance of micro-fluctuations of the polarity of the chemical bond and irradiating wave fluctuations in

the mode of the stochastic electromagnetic field fluctuations. Dr. Rife empirically determined the average value of fluctuations in the distribution of energy-mass charges of the tested viruses and bacteria using a microscope invented by him. Currently, a researcher at the East Siberian branch of FSUE "VNII M.S. Perfiliev, carried out mathematical modeling of micro-fluctuations of the ionicity degree of a chemical bond in a binary molecule. This work allows us to calculate a certain average value of the dipole moment, which oscillates in the oscillator mode, for polar dipole molecules (which most likely include viruses). Therefore, a virus can be considered as a set of very rapidly changing micro-fluctuations of chemical bonds polarity of micro-dipoles. Based on the work of M.S. Perfiliev, it becomes possible to develop a mathematical physicochemical model for determining the wave characteristics of the instrumental resonance effect on the lethal pathogenicity of viruses and, thereby, continue to develop the Dr. Rife's concept of treating viral diseases at the modern scientific and technical level.

Dr. Rife writes: "Using a universal microscope (see Figure 4), it is possible to observe how disease-causing organisms such as tuberculosis, cancer, sarcoma, streptococcus, typhoid fever, staphylococcus aureus, leprosy and many other viral diseases die when exposed to certain lethal frequencies inherent in each individual organism. Now, - he reported, - lethal oscillatory velocities have been found and recorded for any organism, and the beam can be tuned to the recorded frequency of the virus and switched on to affect this organism, with the confidence that the organism will be killed. After the organisms have been "bombarded", laboratory reports show that they are dead. They have become devitalized - they no longer manifest life, do not reproduce their own kind and do not produce any disease" (Figure 5).

Dr. Royal of the Human Nutrition Research Foundation in Milwaukee, Wisconsin USA, wrote: "No medical journal has ever been allowed to report on Rife's work ... when I read 'scientific' reports on genetics, evolution or any other area of microbiology today, I have to laugh because many years ago, 'scientists' were offered real proven treatments viral diseases and they refused this gift! Perhaps someday the world will rediscover one of the greatest gifts it once turned away from. We will be able to develop equipment similar to the Rife Ray apparatus.

Researchers from Germany led by Christine Dorsten, (Klinik Charite, Berlin) and Dr. Clemens Wendtner (Klinik Schwabing. Munich) performed a detailed virological analysis of patients with relatively mild symptoms of COVID-19. Analyzes showed the presence of large amounts of the virus in the upper respiratory tract during the first week after the onset of symptoms (with a peak around the  $4^{th}$ day:  $7.11x10^{g}$  copies of RNA). Similar results were published by researchers in Hong Kong. Earlier, the concept of energetic construction of the virus Phantom from the material of an aqueous solution of blood by the internal energetic forces of water was presented. German scientists have found that the gradient of the virus spread in the body (mainly in the circulatory system, in the nodes of blood exchange with oxygen and carbon dioxide-capillaries, alveoli) is the highest within 4days, after the virus penetrates the

body. That is, it synthesizes its Phantoms within 4days and reaches its maximum of quantitative value by the  $5^{\rm th}$ day:  $7.11x10^{\rm g}$  molecules in 1ml of blood. By the time the virus entered the human body, the energy metabolic system was in an equilibrium state, carrying out the processes of sorption, desorption and resorption of an aqueous solution of blood, according to the parameters established by a healthy lifestyle. Earlier, a formula for the quantitative provision of the synthesis of an aqueous solution of blood by oxygen and hydrogen molecules was presented in an article on the blood flow.

The virus, like all physiological organisms, consists mainly of water molecules. To synthesize  $7.11x10^8$  COVID-19 molecules, additional material (mainly oxygen and hydrogen) is required. Let's calculate the required amount of oxygen, hydrogen and water molecules for the formation of viruses in a volume of 5 liters of an aqueous solution of blood. (This calculation is presented in order to show the order of quantitative values of chemical elements involved in the formation of virus matter) [10-20].

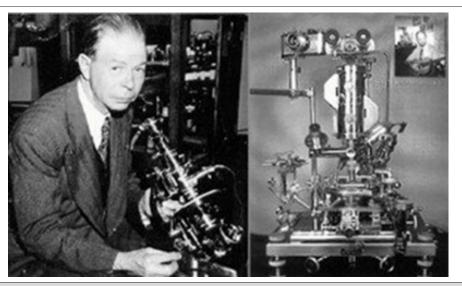


Figure 5: Dr. Rife tests a virus killing machine.

The diameter of a water molecule=0.3nm. Let us take the size of the virus=90.0nm. Water molecule volume =14.2x10-3nm3. Virus volume=3.0x106nm3. The number of water molecules in one virus=2.1x108 H<sub>2</sub>O molecules. The additional number of water molecules required for the synthesis of 7.11x108 viruses is equal to 14.93x10<sup>16</sup> molecules. The number of virus water molecules in 5liters of an aqueous solution of blood=7.5x10<sup>20</sup> molecules. We know that it takes two hydrogen molecules and one oxygen molecule to form two water molecules. Accordingly, the synthesis will require additional  $7.5x10^{20}$  H, molecules and  $3.75x20^{20}$  O, molecules. These indicators characterize the volume of an aqueous solution of the virus, which must be provided with an additional amount of oxygen and hydrogen molecules for the formation of phantoms of the virus by synthesis from an aqueous solution of blood. It should be noted that the blood temperature equal to 37 degrees Celsius corresponds to the vital activity of the organism when performing physical and chemical processes in the volume established by the law of average energy conservation, their equilibrium passage, therefore, the introduction of additional energy will increase the temperature by the amount of change in its gradient equal to 0.03 degrees C. Let's try to calculate the increase in blood temperature during the synthesis of a water cluster during a cycle time of  $10^{-14}$ seconds. The minimum change in the binding energy between water molecules when the cluster is heated by 1 degree, the energy will be equal, 0.000022 or 2.2x10 <sup>5</sup>eV. The calculation is carried out for one bond of two molecules in a cluster. Thus: there will be 3.85x10<sup>20</sup>bonds in the clusters with the

number of water molecules equal to  $7.5x10^{20}$  molecules. Then the energy of all bonds or photons absorbed by electrons, with a cycle time of 10-14seconds, will be equal to  $1.6x10^2$  eV. When carrying out the calculation, it is necessary to take into account that the virus is in erythrocytes, which occupy 45.5% of the volume of the water flow of the blood, therefore, the energy value must be reduced by 2.2 times. Then:

$$T_{gain} = 1.6 \times 10^2 \times 3.0 \times 10^{-2} / 2.2 = 2.18 degrees C.$$

It must be taken into account that fifty percent of the volume of a person's mass is made up of bacteria and viruses, a person is adjacent to them and shares metabolic products. Penetrating into a person, the COVID-19 virus tries to integrate into its structure and with its internal energy field change the potentials of the general external energy field. However, the virus needs energy potentials and materials in the form of oxygen and hydrogen to be born. Therefore, the virus withdraws these elements from the metabolism of an aqueous solution of blood in the amount that we calculated earlier. Such an action violates the balance of the average energy of vital activity and requires a person to either reduce his needs, which, in most cases, leads to a painful state, expressed in a violation of the processes of sorption, desorption, reabsorption and resorption (the intake of nutrients from the environment into the internal environment of the body through cells, cell membranes). Or to open up additional reserves of the body used by a person in extreme situations, for example, mountain climbers, military submariners and the like, previously trained people. Why it is very difficult for old people and children to endure a meeting with the virus. Just because the circulatory system is not yet sufficiently developed in children, and in the elderly, in most cases, there are no reserve opportunities for activating energy metabolic processes. As a result of the infection of children with the COVID-19 virus, a disease called "Multisystem Inflammatory Syndrome" appears, which manifests itself as a consequence of the response of the wave structure of the virus to its hypoxia. Affected children show symptoms similar to those of Kawasaki Syndrome. In the process of the disease, tissue vascularization occurs through the formation and proliferation of new blood vessels, damage to small and large coronary arteries and vessels. A group of children from 6 to 13 years old has been identified, in whom these symptoms are significantly pronounced when infected with the virus. It is known that a sixyear-old child in one breath draws 41.4ml of oxygen into the blood for metabolism, and an adult person inhales 132.9ml of oxygen. This amount of oxygen (41.4 ml) is enough for the child's metabolism, but for the construction of the amount of Phantom virus, which is planned and implemented, its RNA is extremely insufficient. A situation is created when hypoxia is induced in the child and hypoxia is manifested in the virus. To solve this dilemma, a dualism of solutions is developed, namely, the virus reduces the intensity of energy influences on the aqueous solution of blood, responding to the insufficient electrical potentials for photon ionization of erythrocyte and hemoglobin molecules, and the human body, by the activity of a hypoxia-induced transcription factor, generates angiogenesis - the formation of new blood vessels, and develops a respiratory system for delivering a sufficient volume of oxygen to the lungs and, at the same time, a system for regeneration and assimilation of blood. Thus, this process continues until the moment the law of conservation of the average energy of the equilibrium energy-mass of clusters is observed. A person returns to the metabolism and energy exchange necessary for a healthy lifestyle, and the virus, in turn, penetrating into the human body, without "further struggle" acquires conditions for vital functioning and the disease recedes. However, presumably, the virus receives a ban on penetration into the organism, which does not meet the need for providing oxygen to the birth of new viruses in advance, through the information channels of water molecules, which are induced by the tangential torsional forces of the precession of Benard's vortices. Therefore, children are very rarely infected with the COVID 19 virus.

This year, three Nobel Prize winners in physiology and medicine, William Calin Jr., Sir Peter Retcliffe, Johns Hopkins discovered and studied the hypoxia-induced transcription factor protein which regulates the work of many genes in the body with a lack of oxygen. The scientists' discoveries have revealed how cells in the body adapt to changes in oxygen levels and help influence angiogenesis by analyzing the interaction of the *VHL protein with HIF-1a*. The development of a method for sequentially tracking the initial stage of hypoxia during the introduction of a virus based on this discovery and, at the same time, the ability of this organism to provide the virus with additional metabolism, will help to establish

a causal relationship in treatment. It should be noted that it is not the virus that chooses the human body as a habitat, but the person himself, with a set of values of the potentials of his energy fields, attracts the virus for vital functioning in his body. Therefore, the study of the energy interaction of the electromagnetic content of the virus quantum structure will help to identify the cause of viral diseases.

Scientists at the University of Pittsburgh School of Medicine have isolated the smallest molecule to date completely and specifically neutralizing the SARS-CoV-2 virus, which is the cause of COVID-19, and registered it under the symbol Ab8. D. Dimitrov, Ph.D., and his team tested Ab8 using the live SARS-CoV-2 virus in mice with the result of complete blocking of the virus from entering cells. Researchers at the University of British Columbia, in UPMC, LIFE CHANGING MEDICINE, made it clear that they have discovered a unique way that Ab8 is so effective in neutralizing the virus, which is based on the use of sophisticated electron microscopic methods. This scientific work of university researchers, in my opinion, indicates the development of the concept of biological entities with the same degree of ionic bond and the value of relative electronegativity, influencing the virus in order to induce resonance by fluctuations of the stochastic or generated technogenic electromagnetic field of micro dipoles of the dynamics of the virus dualism and, say, Ab8. This is another method of pathogenic influence on the virus, which, at present, is at the stage of comprehending by scientists the ways and directions of research. The initial axiom of the concept assumes that due to the difference in the electronegativity of atoms and due to the dynamism of the electron cloud, which can only be estimated by approximation, there is such a rearrangement of the electron density in the molecule, which transforms all its parameters in order to ensure maximum thermodynamic stability. And these parameters correspond to the characteristics, strictly individually, only for the given energy-mass combination.

Based on the representation of the "spontaneous remission" phenomenon of viral infections, which was recorded by Dr. Gadek, after saturation of the body of patients with hydrogen ions and exposure to the water component of a person, the electromagnetic field in the cave of the Nordenfuer mine, it should be recognized that the concept of recombination of hydrogen ions induced by a stochastic electromagnetic field, as well as the energy of technogenic fields, promotes hemostasis of the human body, up to complete recovery. There is no mysticism in such manifestations of nature. Everything that is created and was created by man, and manifests itself in the tangible and intangible world of nature, a priori, exists in the Structure of the Universe, therefore, not being an invention of the human mind, it should be used for its life.

Let us give an example of a technogenic interpretation for the natural process of induction of the resonance of micro-fluctuations of the chemical bond's polarity of biological elements, which was developed based on the studying the conditions of the mine driftway.

Any molecule is a dynamic system in which vibrations of nuclei, movement of electrons, interaction of atoms in a harmonious oscillator system occur continuously. Due to the significant

complexity of determining the results of the interaction for many oscillators in polyatomic molecules, they are accepted for studying the interaction in a binary molecule. In our case, a water molecule. A molecule can be considered as a set of micro dipoles changing very rapidly in magnitude and direction. This causes micro-fluctuations in the molecular system of electrically charged particles. Biological entities have a homogeneous chemical component of the body structure and this is water. Therefore, it is natural that we need to consider the interaction of ions formed during the dissociation of water molecules. It is known that the effect of the electrons movement is as if "smeared" in space (in a fur coat), between nuclei connected to form a molecule by a common electron pair, which leads to a vibrational displacement of the pair due to a change in the electric charge of the system. During the boundary action of a stochastic electromagnetic field, the harmonic oscillator restrains the fluctuation of oscillations around the mean value. Accordingly, the value of the oscillation frequency for the effective charge on atoms, or the polarity of the chemical bond, corresponds to the sufficiency of mutual attraction in the electron-positron pair. In the case when atomic formations with a large, relative to the existing, electric charge enter a chemical compound, a new polarity of chemical elements is induced, and the old one is destroyed into individual atoms and ions (for example, in water). This creates new electron pairs with a higher dipole moment. Old chemical elements dissociate into free particles and new ones are built from them, already corresponding to the oscillator of healthy biological entity vibrations. A similar result also occurs when a magnetic moment, anomalous for ionic bonding, is induced. The effect of a stochastic electromagnetic field on the hemostasis of the human body is built in nature on this principle by destroying the ionic bonds of various viral formations, an oscillator, which is disturbed by the average value of the general, balanced micro-fluctuations of the biological system induced by the human body.

The theory of micro-fluctuations of the chemical bond's polarity is consistent with the discovery by the US scientist ET Kulin [1] previously unknown nanoparticles of water. Namely: ionic dipoles of water. These particles consist of two water clusters, one of which contains a hydrogen cation (H<sup>+</sup>), and the other contains a hydroxyl anion (HO<sup>--</sup>). These ions instantly (10<sup>-9</sup>s) attach to the nearest water molecules, resulting in the formation of hydrates: +H\*H2O, hydronium ion and OH\*H2O, hydroxyl hydrate. It is quite obvious that ionic bonds are created through the formation of common electron pairs during the formation of a hydrate. Therefore, all the regularities of the chemical bond polarity associated with the value of the relative electronegativity are embedded in the dynamic structure of the ionic dipoles of water. The duration of the formation of hydronium ions and hydroxide ion is about 10<sup>-13</sup>s). Accordingly, they can also be considered as a set of micro dipoles changing very rapidly in magnitude and direction. In a spherical zone, around the formed hydronium and hydroxyl ions, an electrostatic field of high intensity is instantly established. And this pair of unlike ions is an electric dipole with a very high value of elementary charges. Ionic dipoles of water are formed only upon absorption (in the presence) of certain quanta of energy, which generates the frequency and amplitude of fluctuations exceeding the natural background of fractals of the set theory. It should be noted that the measure of sufficiency for the application of the level of efforts for a stochastic electromagnetic field or ultrasonic vibrations must correspond to the threshold of set theory. It is quite obvious that the directed impact on the human body by a technogenic electromagnetic field and ultrasound does not correspond to the safety of life (recall the Philadelphia experiment, the "Rainbow" project). In this work, the concept of creating conditions for the ionization of hydrogen and hydroxyl of water molecules in a virus molecule, through inhalation, through the respiratory tract of a specially prepared ion-dipole emulsion of hydroxide ion and hydronium ion processed in an ultrasonic reactor and in a stochastic electromagnetic field with dissolved molecular hydrogen, is put forward.

It has been experimentally established that liquid water under

the influence of a technogenic electrostatic field with a strength of 10<sup>5</sup>V/m turns into a solid state, from which it follows that water in a spherical zone around an ion dipole is in a solid state and acquires solid-state hydration shells, which structure and properties are similar to the structure and properties of bound water. The existence of water clusters in the structure of water was discovered by US scientists. These clusters, without collapsing, can move in aqueous solutions of the human body and, in particular, in the water flow of blood, transferring charged hydrogen ions to every water "tiny volume" of a person. As a result of this process, a large quantum of energy is released, which is absorbed by one of the molecules of the hydration shell of the ionic dipole encountered on the path of the virus.US scientists have discovered a unique property of an ionic dipole: it is the time-unlimited generation by it of an electrostatic field, which is carried out in the process of their recombination. The value of this quantum of energy is sufficient for ionization of hydrogen and hydroxyl entering the virus molecule (12.6eV), as well as breaking their bond in the molecule (5.0eV). Thus, when the measure of set theory fractals becomes sufficient to continue the process of destruction and renewal of the virus structure, the pathogenicity of the viral infection begins. It should be taken into account that the causal relationship between the formation and destruction of the hydroxide ion and the hydronium ion is due to the laws of micro-fluctuations of the polarity of the chemical bond, and ionization and destruction of the ionic bond occurs when the resonance of these micro-fluctuations is induced with the frequency and amplitude of the oscillator of the water molecule of the virus. The measure of the bond polarity is the electric moment of the dipole, which is equal to the product of the effective charge and the dipole length. As we have considered earlier, dipole moments, which characterize them as micro dipoles, with certain values of vibrations - amplitude and frequency, appear in polar molecules (including excited water molecules). When dipoles of different polarity meet, electromagnetic energy is introduced into a dipole of a lower polarity level and, accordingly, induction of resonance conditions: -equality of the amplitude and frequency of microfluctuations. As a result of resonance, ionization and destruction of ionic bonds occurs, which leads to the disintegration of the virus water molecules into free chemical elements of an already original quality, from which the human body synthesizes new chemical compounds. The level of disintegration depends on the degree of fractal saturation of the system according to the set theory of the considered volume. (In one second,  $10^{13}$  degrees of quasi-dipoles are formed, and the number of fractals can be calculated using the theory of probability). Of course, the dissociation of molecules of the water composition in the human body also occurs, however, this not only has an insignificant effect, since the number of fractals of interaction with the virus is extremely small, but it is also useful, since a partial renewal of the system of the water composition of the human body occurs.

Thus, as a result of biological recombination, by the forces of a stochastic electromagnetic field, within the boundaries of a harmonious oscillator, using the resonance of the polarity of chemical bonds, nature carries out hemostasis of the human body. An example is the creation of conditions for hemostasis in natural formations, such as in the Nordenfuer Mine (Germany).

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None.

### **Conflict of Interest**

None.

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